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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,159	02/05/2002	Hock Chuan Tan	MTI-31608	8043

22202 7590 05/27/2003

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MILWAUKEE, WI 53202

EXAMINER

LE, THAO P

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,159

Applicant(s)

TAN ET AL.

Examiner

Thao P Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 and 112-161 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-14, 47-50, 112-119, 137-139, 144 and 149-161 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Thao Phuong Le
May 16, 2003

David Nelms
Supervisory Patent Examiner
Technology Center 2800

DETAILED ACTION

Response to Preliminary Amendment

1. Preliminary Amendment filed on 12/30/02 has been entered *and made of record as Paper No. 5*

Oath/Declaration

2. The oath/declaration filed on 01/16/02 is acceptable.

Election/Restriction

3. Applicant's election **with traverse** of claims **1-14, 47-50, 112-119, 137-139, 144, and 149-161** in Paper No. **9** is acknowledged. Examiner confirmed that claim 1 is generic to the claims of the species I, species V and VI that contain limitations of a stack die having an upper die and a lower die whereas the upper die having a bottom surface that has a recessed edge along a perimeter of upper die.

Because Applicant did not distinctly and specifically point out the supposed error in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Applicants have the right to file a divisional, continuation or continuation-in-part application covering the subject matter of the non-elected claims.

The species that subjected to restrict in previous office action is base on different embodiments listed the specification and the figures of the application. The specification and figures show distinctive species and therefore it is required to be restricted.

The requirement is still deemed proper and is therefore made FINAL.

4. Applicant is required to cancel non-elected claims when the elected claims are in condition for allowance.

Information Disclosure Statement

5. Information Disclosure Statement (IDS) filed on **05/06/02** and made of record as Paper No. 4. The references cited on the PTOL 1449 form have been considered.

Specification

6. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use

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thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

7. A new abstract is required that is clearly indicative the invention to which the claims are directed. The abstract should be about 50 words minimum and 150 words maximum.

8. This application is in condition for allowance except for the following formal matters:

A. A new abstract is required that is summary and clearly indicative the purpose of the invention.

B. Cancel non-elected claims.

Allowable Subject Matter

9. **Claims 1-14, 47-50, 112-119, 137-139, 144, 149-161 would be allowed.** The following is a statement of reason for the indication of allowable subject matter:

Claims are considered allowable since none of prior art and information disclosure statement made of record teach or suggest claimed limitations having stacked die assemblies having a upper die and a lower die whereas the upper die has a bottom surface with a recessed edge along the perimeter of the die that provides an opening for the bonding element extending from the bond pads of the bottom die, thus eliminating the need for the spacer between the two dies to achieve sufficient clearance for the bonding element.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao P Le whose telephone number is 703-605-1187. The examiner can normally be reached on M-T (8:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 703-308-4910. The fax phone numbers